

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PERMIT
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

Ground Water

PRIORITY DATE	APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
February 12, 1998	S3-30094	S3-30094	

NAME
Anthony Calomeni & Margaret Riemer

ADDRESS (STREET) (CITY) (STATE) (ZIP CODE)
703 Southwest 184th Street Bothell Washington 98012-6213

The applicant is pursuant to the Report of Examination which has been accepted by the applicant, hereby granted a permit to appropriate the following public waters of the State of Washington, subject to existing rights and to the limitations and provisions set herein.

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
Pend Oreille River

**TRIBUTARY OF (IF SURFACE WATERS)
Columbia River**

MAXIMUM CUBIC FEET PER SECOND

QUANTITY, TYPE OF USE, PERIOD OF USE

07 cubic feet per second, 1.83 acre-feet per year, from April 1 to October 1, each year for the non-commercial irriga-

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

160 feet south and 435 feet east from the center of Sec. 17

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SECTION TOWNSHIP N. RANGE, (E. OR W.) W.M. W.R.I.A. COUNTY
NW $\frac{1}{4}$ SE $\frac{1}{4}$ 17 37 43 E. 62 Pend Oreille

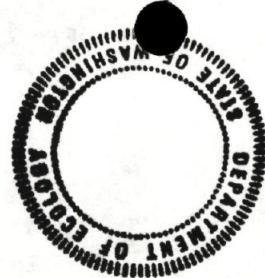
RECORDED PLATTED PROPERTY

LOT 8	BLOCK A	OF (GIVE NAME OF PLAT OR ADDITION) Northern Wilderness Estates
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Lot 8, Block A of Northern Wilderness Estates within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Sec. 17, T. 37 N., R. 43 E.W.M.

[Signature]
by
George B. Schleuder, Section Manager
Department of Ecology



OK *[Signature]*
ENGINEERING DATA

this 11th day of August, 1999.

Given under my hand and the seal of this office at Spokane, Washington,

This permit shall be subject to cancellation shall the permittee fail to comply with the above development schedule and/or to give notice to the Department of Ecology on forms provided by that Department documenting such compliance.

The following hydrographs for the U.S.G.S. Gage on the Pend Oreille River at Newport, Idaho (12395500) demonstrate important hydrologic characteristics of the Pend Oreille River. Before the construction of the Albemarle Falls Dam, the river exhibited normal, riverine flow conditions. The first hydrograph shows the typical late summer flow regime for 10 different years in the 1930s and early 1940s. The solid line at 7700 cfs represents WDFW's recommended instream flow value as it would have applied to the river in the 1930s. When summer flows reached their baseflow, they tended to stay down at that level for the remainder of the water year.

The Washington State Department of Fish and Wildlife (WDFW), has recommended that water rights from the Pend Oreille River be conditioned with instream flows of 7,700 cubic feet per second (cfs) on a year-round basis (as measured at the gage near Newport, Washington).

Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities.

No dam shall be constructed in connection with this diversion.

This permit shall be issued subject to Washington Department of Fish and Wildlife screening criteria as outlined in a Hydraulic Project Approval. Please contact the Department of Fish and Wildlife, 600 Capitol Way North, Olympia, Washington 98501-1091, Attention: Habitat Management Division, Phone (360) 902-2534, to obtain specific requirements for your project.

Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.

A certificate of water right will not be issued until a final examination is made.

States for the benefit of Indians under treaty or otherwise.

This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United

specifically.

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required for the actual crop grown on the number of acres and the place of use specified.

508-64-040.

An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and/or WAC 508-64-020 through WAC

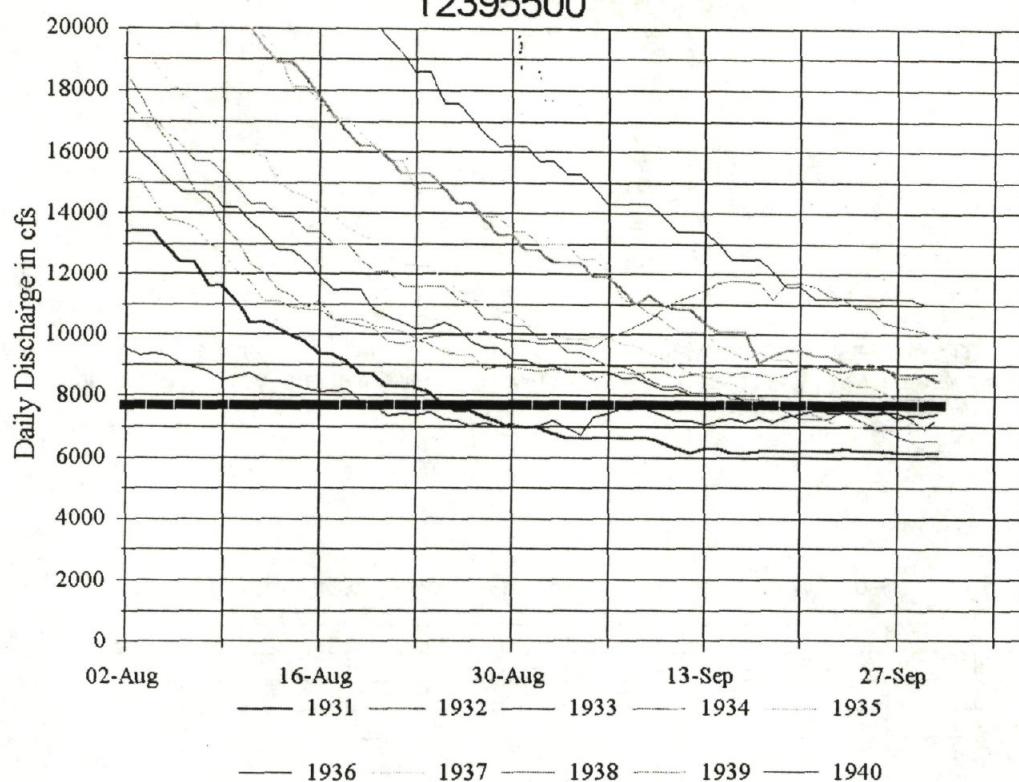
PROVISIONS

DEVELOPMENT SCHEDULE	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:	JULY 1, 2001	JULY 1, 2002	BEGIN PROJECT BY THIS DATE:

Pump and pressure distribution system.

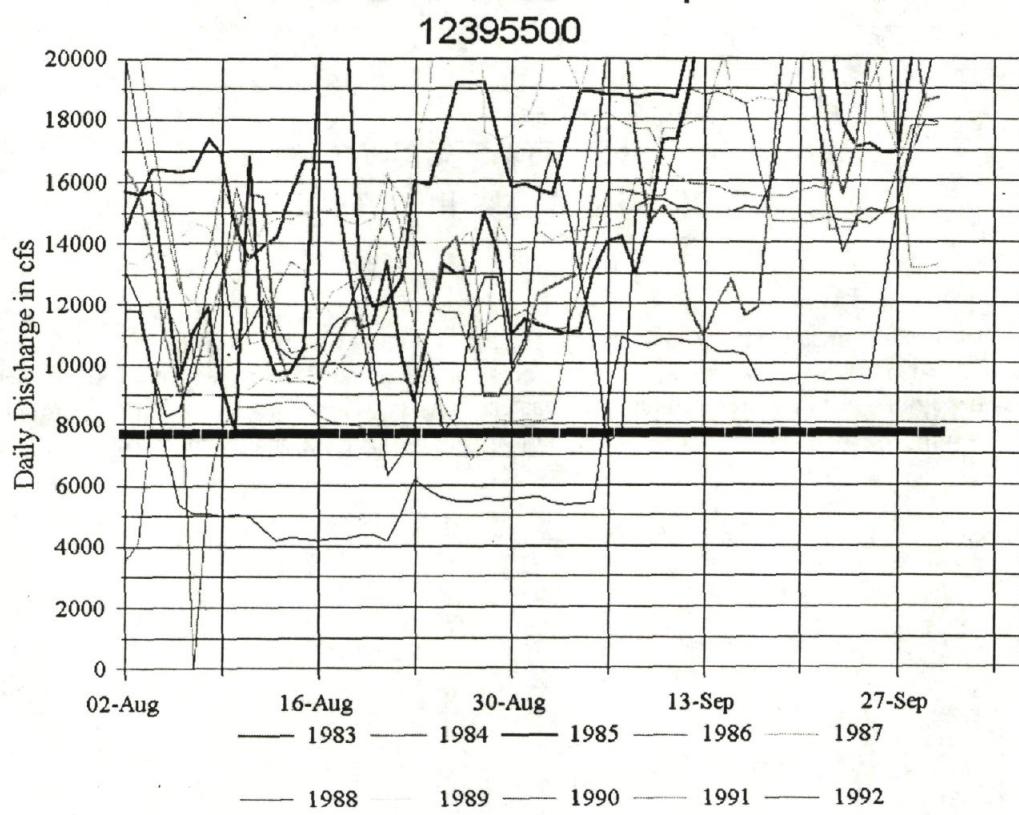
DESCRIPTION OF PROPOSED WORKS

Pend Oreille R at Newport 12395500



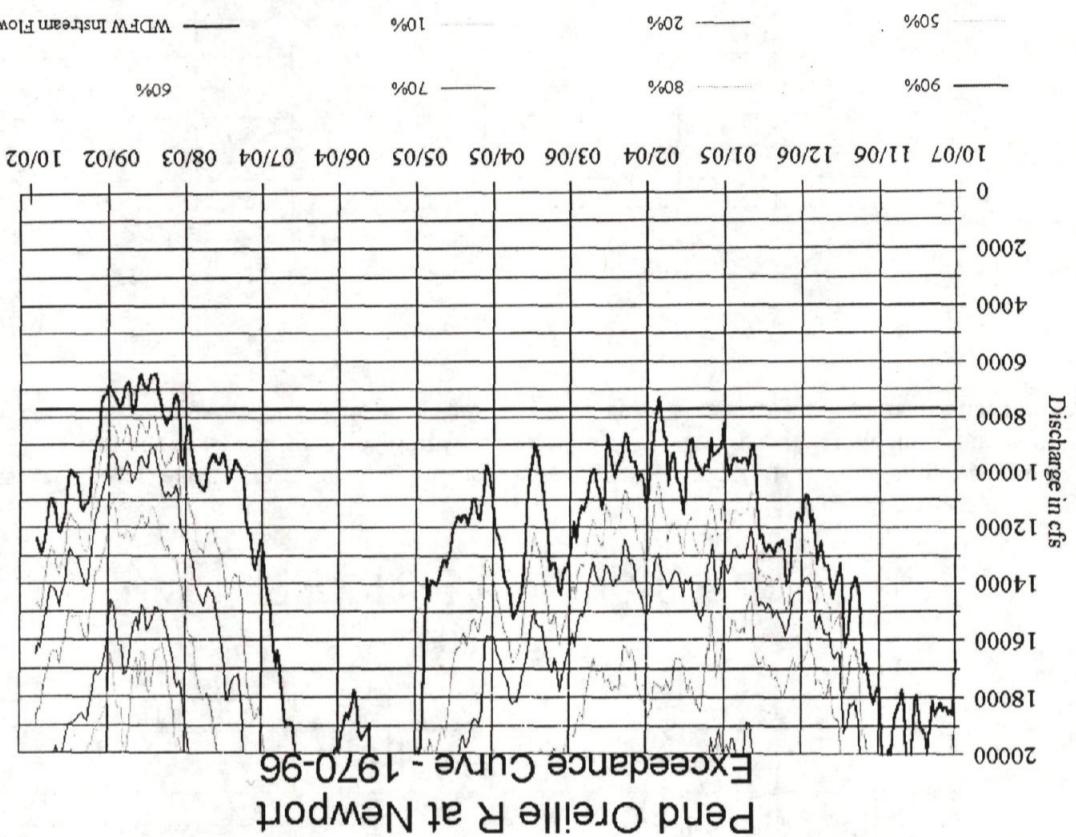
With the construction of the Albeni Falls dam in 1952, the character of the daily discharge changed dramatically from a riverine regime to an impounded, highly regulated, flow regime. The next hydrograph depicts the late summer, daily average discharge for a ten-year period in the 1980s through the early 1990s. The highly variable discharge data reflects the flows that result from the power generation demands that are placed on the river.

Pend Oreille R at Newport 12395500

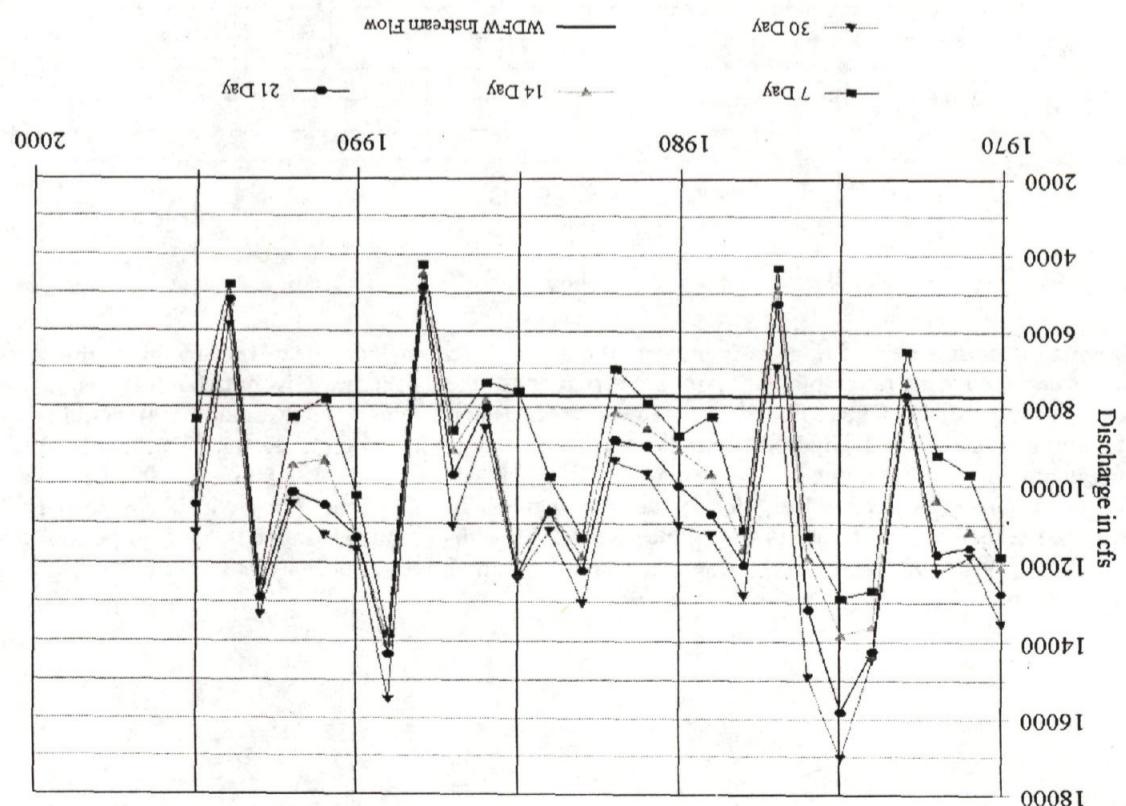


Trying to devise a methodology to implement the WDFW recommended instream flow given the current flow regime of the river requires some careful consideration of the day-to-day variability of the discharge. Given its fluctuations, just simply regulating junior water rights every time the daily average flow drops below 7700 cfs (the recommended instream flow) would be inappropriate and unworkable. Examining the data in the hydrograph indicates that the day-to-day variability is on the order of 5,000 cfs. Looking at a suite of duration frequency low flow analyses (7-day, 14-day, 21-day, and 30-day) for the 1970 through 1996 period allows us to get a better handle on when the flow in the river is truly flowing at a rate that is below the recommended instream flow. By looking at the actual daily flow data, we can see that three water years during the period 1970 – 96 exhibited sustained, low flow periods that were lower than the 7700 cfs threshold (1977, 1988, and 1994). The data from the duration frequency analysis shows that using a 14-day low flow criteria gives us the best opportunity to identify the low flow events.

Therefore, this permit shall be conditioned that all diversion shall cease when the 14-day average flow in the Pend Oreille River falls below 770 cfs (as measured at the Pend Oreille River at Newport gauge) as recommended by WDFW.



Calculating the exceedance probability for the daily average flows for the period 1970 - 96 allows us to see how frequently (on a yearly basis) and for what duration (how many weeks during each year) the flows on the Pend Oreille River can be expected to be below the recommended instream flow. The following graph demonstrates that on average, we can expect the summer low flows in the Pend Oreille River will be above the instream flow 8 to 9 times out of ten years. During that one in ten year event when the flow in the river is below the recommended instream flow, the low flow will last for approximately one month (typically August).



Pend Oreille River Low Flow Analysis